



IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): David D. Bohn

Confirmation No.: 7892

Application No.: 09/471,810

Examiner: Jean Lesperance

Filing Date: Dec. 17, 1999

Group Art Unit: 2674

Title: DISPLAY AND POINTER MANIPULATION USING RELATIVE MOVEMENT TO A DEVICE

Mail Stop Apped Brief-Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

RECEIVED

OCT 23 2003

Technology Center 2600

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith in triplicate is the Apped Brief in this application with respect to the Notice of Apped filed on August 25, 2003.

The fee for filing this Apped Brief is (37 CFR 1.17(c)) \$330.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

( ) one month	\$110.00
( ) two months	\$420.00
( ) three months	\$950.00
( ) four months	\$1480.00

( ) The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of \$330.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

(X) I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Commissioner for Patents, Alexandria VA 22313-1450. Date of Deposit: Oct. 17, 2003  
OR

( ) I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number \_\_\_\_\_ on \_\_\_\_\_  
Express Mail Label No. EV 319507455 US

Typed Name: Kalyn Black

Signature: Kalyn Black

Respectfully submitted,

David D. Bohn

By RW Nelson

Robert W. Nelson

Attorney/Agent for Applicant(s)

Reg. No. 37,898

Date: Oct. 17, 2003

Telephone No.: (303) 298-9888



10-20-03

AF 5  
2100  
16 / Appeal  
Brief  
10-29-03  
NP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT  
APPEALS AND INTERFERENCES

In Re Application of:

DAVID D. BOHN

Serial No.: 09/471,810

Filed: December 17, 1999

For: DISPLAY AND POINTER  
MANIPULATION USING  
RELATIVE MOVEMENT TO A  
DEVICE

)  
)  
)  
) Group Art Unit: 2674  
)  
) Examiner: Jean E. Lesperance  
)  
) Atty. Docket: 10991692-1

RECEIVED

OCT 23 2003

Technology Center 2600

APPEAL BRIEF

Mail Stop: Appeal Brief-Patents

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is submitted in response to the final rejection of the claims mailed from the Patent and Trademark Office on May 27, 2003 (hereinafter "the final rejection"). A Notice of Appeal was mailed to the Patent and Trademark Office on August 25, 2003.

(1) REAL PARTY-IN-INTEREST

The real party-in-interest in the above-referenced patent application is the assignee, HEWLETT-PACKARD COMPANY, INC a corporation having its principal place of business in Palo Alto, California.

10/22/2003 SECONDARY 00000174 082025 09471810  
00 000000 330.00 DA

## **(2) RELATED APPEALS AND INTERFERENCES**

There are currently no related appeals or interferences known to the appellant, the appellant's legal representatives or the assignee, which will directly affect, or be directly affected by, or have a bearing on, the Board's decision.

## **(3) STATUS OF CLAIMS**

Claims 1-56 were originally filed with the application and remain pending in the application. Claims 1-56 stand rejected. The rejections of claims 1-56 are appealed. A copy of the appealed claims as they currently appear is in the appendix attached hereto.

## **(4) STATUS OF AMENDMENTS**

No amendments have been filed since the final rejection was mailed from the Patent and Trademark Office on May 27, 2003.

## **(5) SUMMARY OF THE INVENTION**

The appellant's invention, as claimed, is summarized and explained below with reference numerals, specification page numbers and drawing figure numbers indicating exemplary areas where support for the claims is found in the specification and drawings.

1. An electronic device (1000), comprising:  
a display (1002) showing an image; and,  
a navigation sensor (1008), whereby a movement of said electronic device (1000) relative to a surface in close proximity to said navigation sensor (1008) is sensed by said navigation sensor (1008) and said movement includes moving said display (1002) and said movement produces a change

in said image that is showing on said display (1002). [Fig. 1; page 6, lines 9-21]

8. An electronic device (1000), comprising:  
a display (1002);

a navigation sensor (1008) coupled to said display (1002) whereby said navigation sensor (1008) detects a movement of said electronic device (1000) relative to a surface in close proximity to said navigation sensor (1008) and said movement includes movement of said display (1002) and an image displayed on said display (1002) is altered in response to said movement.  
[Fig. 1; page 6, line 9 to page 7, line 3]

17. A method of manipulating an image displayed by a device (1000) on a display (1002), comprising:

moving the entire device (1000) including said display (1002) relative to a surface upon which said device (1000) is placed. [Fig. 1; page 6, lines 4-5; page 6, line 9 to page 7, line 3]

22. A method of manipulating an image displayed on a display (1002), comprising:

detecting a movement of a device (1000) that includes said display (1002) wherein said movement is detected relative to a surface in contact with said device (1000); [Fig. 1; page 6, lines 4-5] and,

altering said image in response to said movement. [Fig. 1; page 6, lines 4-5; page 6, line 9 to page 7, line 3]

27. An electronic scanning device (4000), comprising  
an image sensor (4012) for scanning an image; [Fig. 4; page 9, lines 16-17]

a display (4002) that displays a first part of a scanned version of said image, [Fig. 4; page 9, lines 9-12]

a navigation sensor (4008, 4010) that detects relative movement between said scanning device (4000) and a surface in close proximity to said

navigation sensor (4008, 4010) whereby said relative movement changes said display (4002) to displaying a second part of said scanned version of said image. [Fig. 4; page 10, lines 1-10]

32. A method of previewing a scanned image, comprising:  
displaying a first part of a scanned image; [Fig. 3; page 8, lines 18-22]  
displaying a second part of said scanned image in response to relative movement between a scanning device (3000) and a surface in close proximity to said scanning device (3000). [Fig. 3; page 8, lines 18-22]

36. An electronic device (1000), comprising:  
a display (1002) showing an image; and, [Fig. 1; page 6, lines 2-3; page 6, lines 22-23]  
a navigation sensor (1008), whereby a movement of a part of a user in close proximity to said navigation sensor (1008) is sensed by said navigation sensor (1008) and said movement produces a change in said image that is showing on said display (1002) and wherein said movement does not include movement of said device (1000) and wherein said navigation sensor (1008) is not on a side of said device (1000) that contains said display (1002). [Fig. 1; page 6, lines 2-4; page 6, line 9 to page 7, line 3]

43. An electronic device (1000), comprising:  
a display (1002); [Fig. 1; page 6, lines 2-3]  
a navigation sensor (1008) coupled to said display (1002) whereby said navigation sensor (1008) is not on the same side of said electronic device (1000) as said display (1002) and said navigation sensor (1008) detects a movement of a part of a user placed in close proximity to said navigation sensor (1008) and wherein said movement does not include movement of said device (1000) and an image displayed on said display (1002) is altered in response to said movement of said part of said user. [Fig. 1, lines 2-4; Fig. 1; page 6, lines 2-4; page 6, line 9 to page 7, line 3]

52. A method of manipulating an image displayed by a device (1000) on a display (1002), comprising:

moving a part of a user in front of a navigation sensor (1008) wherein said navigation sensor (1008) is on the opposite side of said device (1000) as said display (1002) and said part of said user is in close proximity to said navigation sensor (1008) and said navigation sensor (1008) senses movement of said part of said user relative to said navigation sensor (1008).

[Fig. 1, lines 2-4; Fig. 1; page 6, lines 2-4; page 6, line 9 to page 7, line 3]

#### **(6) ISSUE**

Whether claims 1-56 are unpatentable under 35 U.S.C. §102(b) over the publication of Jun Rekimoto (hereinafter, simply Jun Rekimoto).

#### **(7) GROUPING OF CLAIMS**

All claims will stand and fall with claim 1. This grouping is made solely for the purposes of this appeal so as to simplify the appeal issues.

#### **(8) ARGUMENT**

##### **Relevant Law**

The standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. §102 is one of strict identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

##### **Argument**

The claims were rejected under 35 U.S.C. §102(b) based on a publication by Jun Rekimoto, which is referred to herein simply as Jun Rekimoto. In summary, the

Applicant argues that Jun Rekimoto does not disclose all the elements of the claims. Therefore, the rejections of the claims are not proper under 35 U.S.C. §102(b). The claims are directed toward changing an image displayed on an electronic device by moving the electronic device relative to a surface.

Jun Rekimoto, on the other hand, discloses modifying a displayed image by measuring the tilt of a device displaying the image irrespective of whether the device is moved relative to a surface. Jun Rekimoto refers to measuring tilt by use of gyroscopes, inclinometers, and compasses. None of these items or methods measure movement of the device relative to a surface as claimed by the Applicant. More specifically, there is no disclosure in Jun Rekimoto regarding moving a device relative to a surface in order to change a displayed image as claimed by the Applicant.

Accordingly, Jun Rekimoto does not disclose all the elements of the claims and, therefore, cannot anticipate the claims.

Having summarily described the Applicant's arguments, they will now be described in greater detail. The Applicant first rebuts the rejections in the Office Actions wherein the tilt of the Jun Rekimoto device is related with the claimed movement of a device relative to a surface. The Applicant then explains that, regardless of the allegations made in the Office Actions, Jun Rekimoto does not disclose all the elements of the claims.

For convenience, claim 1 is replicated as follows:

An electronic device, comprising:  
a display showing an image; and  
a navigation sensor, whereby **movement of said electronic device relative to a surface in close proximity to said navigation sensor** is sensed by said navigation sensor and said movement includes moving said display and said movement produces a change in said image that is showing on said display.

Some portions of claim 1 that are not disclosed by Jun Rekimoto have been replicated above in bold type.

In the Advisory Action mailed on August 12, 2003, the following is provided as grounds for rejection:

Jun Rekimoto teaches a hand-held device using tilt as an input method. It is placed in the user's hand where the hand represents the surface which is in close proximity to the navigation sensor.

The Applicant briefly notes that the Advisory Action states that the Jun Rekimoto device is held in a user's hand in order to be tilted. The Advisory Action also states, as quoted above, that the user's hand is the surface of claim 1. Therefore, according to the Advisory Action the Jun Rekimoto user holds the device in his or her hand in order to tilt it and moves the device relative to his or her hand. The idea of holding a device in order to tilt it and moving the device relative to a hand are contrary to one another. Furthermore, as set forth below, there is no disclosure in Jun Rekimoto regarding moving the device relative to a user's hand or, for that matter, relative to any surface.

A similar ground of rejection was presented in the Final Office Action mailed on May 27, 2003. On page 2, the following is given for the grounds of rejection:

As for claims 1, 8, 17, 27, 32, 36, 43, and 52, Jun Rekimoto teaches a display (Fig. 3) and a hand-held electronic device, including pagers, and cell phones. Instead of using a pen or a touch sensitive display, there are other possibilities to operate hand-held devices. They are using tilt as the input method corresponding to a navigation sensor.

The Applicant agrees with the Office Action in that Jun Rekimoto teaches using tilt to change a displayed image. However, tilt has no bearing on any of the Applicant's claims. Furthermore, the Office Action states that there are other possibilities to operate hand-held devices. Jun Rekimoto, however, is silent with regard to moving a device relative to a surface as claimed claim 1. For example, Jun Rekimoto is silent with regard to the following element of claim 1 which states, in part:



...whereby movement of said electronic device relative to a surface in close proximity to said navigation sensor is sensed by said navigation sensor...

As set forth above, the rejections in the Office Actions do not reflect the claims and are, therefore, improper or at least irrelevant with regard to rejections under 35 U.S.C. §102(b).

The Applicant will now show that Jun Rekimoto does not disclose the elements of the claims and, therefore, Jun Rekimoto cannot anticipate the claims per 35 U.S.C. §102(b). Jun Rekimoto solely discloses tilting a device in order to change a displayed image. For example, the Abstract of Jun Rekimoto states, in part:

This technote introduces a novel interaction technique for small screen devices such as palmtop computers or hand-held electronic devices, including pagers and cellular phones. Our proposed method uses the tilt of the device itself as input.

In the "Tilting as Input" section of Jun Rekimoto, examples of measuring tilt using gyros are provided. Gyros measure tilt relative to the center of the earth and have absolutely nothing to do with the movement of a device relative to a surface as claimed by the Applicant. In the "Prototype System" section of Jun Rekimoto, an example of a tilt detection system is provided. The remainder of Jun Rekimoto describes analyzing tilt and applying tilt information to the displayed image.

There is absolutely no disclosure of moving the device of Jun Rekimoto relative to any surface as claimed by the Applicant. The Applicant respectfully notes that none of the rejections in the Office Actions were able to point to any disclosure of Jun Rekimoto related to moving a device relative to a surface in order to change a displayed image as claimed by the Applicant.

In order for a rejection to stand under 35 U.S.C. §102(b), the reference must include all the elements of the claim. Clearly, the Jun Rekimoto reference does not

include all the elements of claim 1 or any other pending claim. Therefore, the rejection of the claims is not proper.

For the reasons set forth above, Appellant respectfully asserts that all of the pending claims are allowable and that all of the rejections should be reversed.

Respectfully submitted,

KLAAS, LAW, O'MEARA & MALKIN, P.C.

October 17, 2003

By: *RW Nelson*  
Robert W. Nelson  
Registration No. 37,898  
1999 Broadway, STE 2225  
Denver, CO 80202  
(303) 298-9888

## (9) APPENDIX

1. An electronic device, comprising:  
a display showing an image; and,  
a navigation sensor, whereby a movement of said electronic device relative to a surface in close proximity to said navigation sensor is sensed by said navigation sensor and said movement includes moving said display and said movement produces a change in said image that is showing on said display.
2. The electronic device of claim 1 wherein said change comprises at least moving a cursor.
3. The electronic device of claim 1 wherein said change comprises at least panning at least part of said image that is showing on said display.
4. The electronic device of claim 1 wherein said change comprises at least scrolling at least part of said image that is showing on said display.
5. The electronic device of claim 1 wherein said change comprises at least navigating at least part of said image that is showing on said display.
6. The electronic device of claim 1 further comprising:  
a first button, whereby said movement of said electronic device and said first button may be operated in cooperation to mimic at least one function of a computer mouse being used with a graphical user interface.
7. The electronic device of claim 6 further comprising:  
a second button, whereby said movement of said electronic device, said first button, and said second button may be operated in cooperation to mimic more than one function of a computer mouse being used with a graphical user interface.

8. An electronic device, comprising:

a display;

a navigation sensor coupled to said display whereby said navigation sensor detects a movement of said electronic device relative to a surface in close proximity to said navigation sensor and said movement includes movement of said display and an image displayed on said display is altered in response to said movement.

9. The electronic device of claim 8 wherein said image displayed on said display is altered in response to said movement by moving an image of a cursor.

10. The electronic device of claim 8 wherein said image displayed on said display is altered in response to said movement by panning a second image displayed on at least part of said display.

11. The electronic device of claim 8 wherein said image displayed on said display is altered in response to said movement by scrolling a second image displayed on at least part of said display.

12. The electronic device of claim 8 wherein said image displayed on said display is altered in response to said movement by showing a different part of a second image part of which is displayed on at least part of said display.

13. The electronic device of claim 8 further comprising:

a first button, whereby said movement of said electronic device and said first button may be operated in cooperation to mimic at least one function of a computer mouse being used with a graphical user interface.

14. The electronic device of claim 13 wherein a graphical user interface is being displayed on said display.

15. The electronic device of claim 13 further comprising:  
a second button, whereby said movement of said electronic device, said first button, and said second button may be operated in cooperation to mimic more than one function of a computer mouse being used with a graphical user interface.

16. The electronic device of claim 15 wherein a graphical user interface is being displayed on said display.

17. A method of manipulating an image displayed by a device on a display, comprising:

moving the entire device including said display relative to a surface upon which said device is placed.

18. The method of claim 17, further comprising:  
moving a cursor displayed on said display.

19. The method of claim 17, further comprising:  
scrolling at least part of said image displayed on said display.

20. The method of claim 17, further comprising:  
panning at least part of said image displayed on said display.

21. The method of claim 17, further comprising:  
showing a different part of a second image at least part of which is displayed on said display.

22. A method of manipulating an image displayed on a display, comprising:  
detecting a movement of a device that includes said display wherein said movement is detected relative to a surface in contact with said device; and,  
altering said image in response to said movement.

23. The method of claim 22, further comprising:  
moving a cursor displayed on said display.

24. The method of claim 22, further comprising:  
scrolling at least part of said image displayed on said display.

25. The method of claim 22, further comprising:  
panning at least part of said image displayed on said display.

26. The method of claim 22, further comprising:  
showing a different part of a second image at least part of which is displayed  
on said display.

27. An electronic scanning device, comprising  
an image sensor for scanning an image;  
a display that displays a first part of a scanned version of said image,  
a navigation sensor that detects relative movement between said scanning  
device and a surface in close proximity to said navigation sensor whereby said  
relative movement changes said display to displaying a second part of said scanned  
version of said image.

28. The electronic scanning device of claim 27 wherein said relative  
movement may also move a cursor displayed on said display.

29. The electronic scanning device of claim 27 wherein said second part of  
said scanned version of said image is a scrolled in relation to said first part of said  
scanned version of said image.

30. The electronic scanning device of claim 27 wherein said second part of  
said scanned version of said image is a panned in relation to said first part of said  
scanned version of said image.

31. The electronic scanning device of claim 27 wherein said second part of said scanned version of said image is displaced in two directions in relation to said first part of said scanned version of said image.

32. A method of previewing a scanned image, comprising:  
displaying a first part of a scanned image;  
displaying a second part of said scanned image in response to relative movement between a scanning device and a surface in close proximity to said scanning device.

33. The method of claim 32 wherein said second part of said scanned image is scrolled in relation to said first part of said scanned image.

34. The method of claim 32 wherein said second part of said scanned image is panned in relation to said first part of said scanned image.

35. The method of claim 32 wherein said second part of said scanned image is displaced in two directions in relation to said first part of said scanned image.

36. An electronic device, comprising:  
a display showing an image; and,  
a navigation sensor, whereby a movement of a part of a user in close proximity to said navigation sensor is sensed by said navigation sensor and said movement produces a change in said image that is showing on said display and wherein said movement does not include movement of said device and wherein said navigation sensor is not on a side of said device that contains said display.

37. The electronic device of claim 36 wherein said change comprises at least moving a cursor.

38. The electronic device of claim 36 wherein said change comprises at least panning at least part of said image that is showing on said display.

39. The electronic device of claim 36 wherein said change comprises at least scrolling at least part of said image that is showing on said display.

40. The electronic device of claim 36 wherein said change comprises at least navigating at least part of said image that is showing on said display.

41. The electronic device of claim 36 further comprising:  
a first button, whereby said movement of said part of said user and said first button may be operated in cooperation to mimic at least one function of a computer mouse being used with a graphical user interface.

42. The electronic device of claim 41 further comprising:  
a second button, whereby said movement of said part of said user, said first button, and said second button may be operated in cooperation to mimic more than one function of a computer mouse being used with a graphical user interface.

43. An electronic device, comprising:  
a display;  
a navigation sensor coupled to said display whereby said navigation sensor is not on the same side of said electronic device and said navigation sensor detects a movement of a part of a user placed in close proximity to said navigation sensor and wherein said movement does not include movement of said device and an image displayed on said display is altered in response to said movement of said part of said user.

44. The electronic device of claim 43 wherein said image displayed on said display is altered in response to said movement by moving an image of a cursor.

45. The electronic device of claim 43 wherein said image displayed on said display is altered in response to said movement by panning a second image displayed on at least part of said display.



46. The electronic device of claim 43 wherein said image displayed on said display is altered in response to said movement by scrolling a second image displayed on at least part of said display.

47. The electronic device of claim 43 wherein said image displayed on said display is altered in response to said movement by showing a different part of a second image part of which is displayed on at least part of said display.

48. The electronic device of claim 43 further comprising:  
a first button, whereby said movement of said part of said user and said first button may be operated in cooperation to mimic at least one function of a computer mouse being used with a graphical user interface.

49. The electronic device of claim 48 wherein a graphical user interface is being displayed on said display.

50. The electronic device of claim 48 further comprising:  
a second button, whereby said movement of said part of said user, said first button, and said second button may be operated in cooperation to mimic more than one function of a computer mouse being used with a graphical user interface.

51. The electronic device of claim 50 wherein a graphical user interface is being displayed on said display.

52. A method of manipulating an image displayed by a device on a display, comprising:

moving a part of a user in front of a navigation sensor wherein said navigation sensor is on the opposite side of said device as said display and said part of said user is in close proximity to said navigation sensor and said navigation sensor senses movement of said part of said user relative to said navigation sensor.

53. The method of claim 52, further comprising:  
moving a cursor displayed on said display.

54. The method of claim 52, further comprising:  
scrolling at least part of said image displayed on said display.

55. The method of claim 52, further comprising:  
panning at least part of said image displayed on said display.

56. The method of claim 52, further comprising:  
showing a different part of a second image at least part of which is displayed  
on said display.